Little Red Goose Commercial Thinning Treatment Descriptions

Free Thin

Free thinning would generally be used in stands with canopy cover of early seral species greater than 35% and would allow flexibility to use different thinning methods for varying stand conditions and objectives. Free thinning would use a combination of thinning from below (removing trees from the lower crown classes), crown thinning (removing trees from the dominant/co-dominant crown classes) and occasional sanitation cutting (removing trees to improve stand health, especially mistletoe infections) or a combination of all three to improve stand health by reducing the anticipated spread of insects or disease.

- Maximize the retention of early seral and large trees to the extent that the trees promoted are resilient to insects and disease (considerations: portions of stands with Douglas-fir greater than 20"/pure ponderosa with 100 basal area (BA) or greater should be thinned to reduce bark beetle risk, etc.)
- Vary spacing to leave the healthiest, largest trees while promoting species diversity. In stands affected by Douglas-fir tussock moth, Douglas-fir and grand fir with 25% or less defoliation would be acceptable leave trees. Affected trees with 26-60% defoliation could be retained to meet canopy cover requirements.
- Species preference: western larch, ponderosa pine, Douglas fir over other species (with clumps of engleman spruce/lodgepole). In stands with an older lodgepole pine component with crown ratios below 40%, favor other leave trees
- Retain 5-12 tree clumps as appropriate
- Openings up to two acres to promote aspen or to promote western larch, ponderosa pine, Douglas fir where there is evidence of having previously been abundant. Within openings not favoring aspen, 4 to 8 trees of the healthiest & largest tree size class would be left. No openings in RCAs.
- Target snags per acre: 4 to 8 based on snag diameter with preference to larger diameters (>15" DBH), high defect, poor form, dead tops not associated with this year's defoliation, trees with 25-60% defoliation, or trees in steep portions of unit
- Thinning of RCAs
    - Would only occur in RCAs that have an existing early seral component. In areas with a high enough density of early serals, the stand would be thinned to a crown spacing of 10 feet. In stands with a low density of early serals, early seral species would be daylighted up to 15'.
- Within "mature" ponderosa pine plantations (avg. DBH 8-12")
    - Favor retention of the largest, healthiest ponderosa pine trees while also favoring trace species that are present (e.g. promote species diversity)
    - Thin to 60-100 basal area/25' bole spacing (70-80 TPA)
- Last Chance Campground/treatments along primary open roads
    - Consider using the 7 point hazard tree rating system and marking for removal trees with a score of 4 or higher.

Patch Cut

Patch cut treatments would be used to regenerate shade intolerant species such as ponderosa pine, Douglas-fir and western larch. Seed trees should have desirable tree form, be of a preferred species to be regenerated, vigorous, and spatially distributed throughout the treatment unit. Generally, less than 10% canopy closure would be left to provide seed.

Targeted stands would generally be areas with high levels of defoliation or stands that do not have enough healthy, vigorous early seral species to free thin and there is evidence (legacy trees, stumps, snags) of previously having a larger component of aspen, western larch, ponderosa pine or Douglas-fir.

- Acreage: up to 40 acres
- Stocking: 5-10 trees per acre preferably spatial distributed throughout unit
- Species preference: healthy western larch, ponderosa pine, Douglas fir over other species
- Maximize the retention of early seral and large trees to the extent that the trees promoted are resilient to insects and disease (considerations: portions of stands with Douglas-fir greater than 20"/pure ponderosa with 100 BA or greater should be thinned to reduce bark beetle risk, etc.)
- Target snags per acre: 4 to 8 based on snag diameter with preference to larger diameters (>15" DBH), high defect, poor form, dead tops not associated with this year's defoliation, trees with 25-60% defoliation, or trees in steep portions of unit
- Regeneration: likely artificial regen

Shelterwood

Shelterwood treatments would be used to regenerate shade intolerant species such as ponderosa pine, Douglas-fir and western larch. Preferred retention trees should be vigorous seral species, with full healthy crowns, spatially distributed throughout the treatment unit. Large diameter (>20"), dominant grand fir cull trees are acceptable for shelterwood retention. Generally, 10-30% canopy closure would be left for site protection and to provide seed.

Targeted stands would generally be areas with high levels of defoliation, stands that do not have enough healthy, vigorous early seral species to free thin, but have a greater component of early seral species than patch cut treatments.

Shelterwood treatments would be utilized in areas with high levels of defoliation.

- Acreage: greater than 3 acres
- Desired trees per acre: 17-20 trees per acre preferably spatially distributed throughout unit
- Species preference: healthy western larch, ponderosa pine, Douglas fir over other species
- Maximize the retention of early seral and large trees to the extent that the trees promoted are resilient to insects and disease (considerations: portions of stands with Douglas-fir greater than 20"/pure ponderosa with 100 BA or greater should be thinned to reduce bark beetle risk, etc.)
- When cull grand fir are retained consider using the 7 point hazard tree rating system and marking for removal trees with a score of 4 or higher.

- Target snags per acre: 4 to 8 based on snag diameter with preference to larger diameters (>15" DBH), high defect, poor form, dead tops not associated with this year's defoliation, trees with 25-60% defoliation, or trees in steep portions of unit
- Regeneration: generally naturally regenerated but potential for artificial regeneration

Aspen

Units identified for aspen enhancement would have evidence of having an aspen component either existing or past evidence (relic early seral trees, stumps, snags). The intent is to reestablish the aspen component within these stands. Portions of stands not meeting the criteria for aspen enhancement could be thinned depending on density and species composition.

- Cut all conifers within 100 feet of the south and west edges of aspen and within 50 feet on the north and east edges. Healthy western larch may be retained.
- No openings larger than 40 acres
- Target snags per acre: 4 to 8 based on snag diameter with preference to larger diameters (>15" DBH), high defect, poor form, dead tops not associated with this year's defoliation, trees with 25-60% defoliation, or trees in steep portions of unit